

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD					
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	14,203	80,283	133,291	119,287	48,479	19,657	0	0	423,321
133B Rapid Execution & Combat Targeting (REACT)	0	5,255	20,661	15,672	13,943	0	0	0	55,531
4371 Safety Enhanced Reentry Vehicle (SERV) Program	0	51,603	64,046	55,769	34,536	19,657	0	0	225,611
4788 PSRE Life Extension Program	14,203	19,425	21,030	10,636	0	0	0	0	73,415
4823 ECS Replacement Program	0	0	11,992	13,951	0	0	0	0	25,943
5007 GPS Metric Tracking Capability	0	4,000	5,686	0	0	0	0	0	9,686
5037 Support Equipment	0	0	9,876	23,259	0	0	0	0	33,135
Quantity of RDT&E Articles	0	3	3	3	0	0	0	0	0

In FY 2003, Projects 4823, ECS Replacement Program, and 5037, Support Equipment, include new start efforts.

(U) **A. Mission Description**

ICBM modernization efforts will ensure the extension of the operational life of the Minuteman ICBM weapon system.

The Rapid Execution and Combat Targeting (REACT) Program designs and develops the modifications to the weapon system control consoles to correct launch readiness deficiencies.

The Safety Enhanced Reentry Vehicle (SERV) Program designs, develops, and tests the modifications necessary to adapt the Minuteman III Reentry System to accommodate the Mk 21 Reentry Vehicle. All RDT&E articles (9) in FY02-04 are in support of the SERV Program.

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BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604851F ICBM - EMD**(U) A. Mission Description Continued**

The Propulsion System Rocket Engine (PSRE) Life Extension Program (LEP) refurbishes the Minuteman post-boost vehicle to correct age-related degradations.

The Environmental Control System (ECS) Replacement Program refurbishes, updates, and/or replaces components of the current Minuteman ECS in the Launch Facilities (LFs) and Missile Alert Facilities (MAFs).

The Global Positioning System (GPS) Metric Tracking Capability Program designs and develops the modifications to the Minuteman III Range Instrumentation/Safety Wafer needed to use GPS for obtaining real-time position data to meet test range safety requirements.

The Support Equipment program designs and develops the refurbishments, updates, and/or replacements to equipment used for missile weapons systems maintenance and refurbishment at organizational/intermediate (base/field) and depot levels, launch control facilities, as well as missile testing facilities.

All of these modernization programs are designed to keep the Minuteman Weapon System at its required availability and reliability levels.

(U) B. Budget Activity Justification

This program is in Budget Activity 05 - Engineering and Manufacturing Development because the projects are being developed for the Air Force but have not received production approval.

(U) C. Program Change Summary (\$ in Thousands)

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
(U) Previous President's Budget	18,157	81,086	109,545	700,181
(U) Appropriated Value	18,325	81,086		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-128	-803		
b. Small Business Innovative Research	-1,154			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram	-2,800			
e. Rescissions	-40			
(U) Adjustments to Budget Years Since FY 2002 PBR			23,746	

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PE NUMBER AND TITLE

05 - Engineering and Manufacturing Development**0604851F ICBM - EMD**(U) C. Program Change Summary (\$ in Thousands) Continued

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
(U) Current Budget Submit/FY 2003 PBR	14,203	80,283	133,291	423,321

(U) Significant Program Changes:

FY03: Funding adjustments are the result of PSRE Life Extension Program restructuring, and additional funding for the Support Equipment and GPS Metric Tracking Programs. See specific R-2A Exhibits for details.

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BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT 133B	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
133B Rapid Execution & Combat Targeting (REACT)	0	5,255	20,661	15,672	13,943	0	0	0	55,531
<p>(U) <u>A. Mission Description</u> The Rapid Execution and Combat Targeting (REACT) Service Life Extension Program (SLEP) will modify the 50 Minuteman (MM) III Launch Control Centers, (LCCs) Weapon System Control Consoles and the 19 other trainer and test facilities which support the MM weapon system. Hardware changes include modernizing and/or upgrading the Embedded Memory Array Dynamic (EMAD) Card. The REACT Console Operations Program (COP) will also be modified. Specifically, funding will be used to design, develop, test, and qualify the new EMAD card as well as the software used to correct the identified deficiencies of the COP.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$0 No Activity - System Development & Demonstration (SDD) begins in FY02 (U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u> (U) \$4,098 Begin design, development, testing, and qualification of the new EMAD card. (U) \$1,000 Begin COP software development. (U) \$157 Provide program support. (U) \$5,255 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u> (U) \$5,740 Continue design, development, testing, and qualification of the new EMAD card. (U) \$14,403 Continue COP software development. (U) \$518 Provide program support. (U) \$20,661 Total</p> <p>(U) <u>B. Project Change Summary</u> No significant program changes.</p>									
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002		
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development				0604851F ICBM - EMD				133B	
(U) C. Other Program Funding Summary (\$ in Thousands)									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other APPN									
(U) Missile Procurement - AF		9,155	15,167	14,573	7,106				46,001
(PE 0101213F, Minuteman Squadrons, MM III Modifications, REACT, Mod #3413) (BA-03, P-011)									
NOTE: Procurement data above is only for items being procured as a result of the current RDT&E effort, not total procurement from REACT Program inception.									
(U) D. Acquisition Strategy									
A Cost Plus Award Fee (CPAF) contract addendum to the ICBM Prime Integration Contract with effort scheduled to begin in 2QFY02.									
(U) E. Schedule Profile									
		<u>FY 2001</u>				<u>FY 2002</u>		<u>FY 2003</u>	
	1	2	3	4	1	2	3	4	
(U) Milestone B						X			
(U) SDD Contract Award						X			
(U) COP PDR								X	
(U) COP CDR									X
(U) EMAD PDR								X	
(U) EMAD CDR									X
(U) HDA PDR									X
* - Completed Event X - Planned Event									
Project 133B									
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002		
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development					0604851F ICBM - EMD				133B	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>
(U)	Design, Develop, Test, and Qualify the new EMAD Card							4,098		5,690
(U)	Software Development							1,000		14,453
(U)	Other Program Costs							157		518
(U)	Total							5,255		20,661
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
	<u>Contractor or</u>	<u>Contract</u>								
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>					
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									
	TRW	C/CPAF	Mar 02	TBD	46,545			4,598	17,795	24,172
	<u>Support and Management Organizations</u>									
	NSCCA	SS/CPAF	Feb 02	TBD	7,545			500	2,348	4,697
	Other Government Costs	TBD	Jan 02	TBD	1,421			157	518	746
	<u>Test and Evaluation Organizations</u>									
(U) <u>Government Furnished Property:</u>										
		<u>Contract</u>								
		<u>Method/Type</u>	<u>Award or</u>							
	<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Property</u>									
	None									
	<u>Support and Management Property</u>									
	None									
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2002	
BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT
05 - Engineering and Manufacturing Development		0604851F ICBM - EMD				133B
(U) <u>Government Furnished Property Continued:</u>						
<u>Test and Evaluation Property</u>						
None						
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Total</u>
<u>Subtotals</u>		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Program</u>
Subtotal Product Development				4,598	17,795	46,565
Subtotal Support and Management				657	2,866	8,966
Subtotal Test and Evaluation						
Total Project				5,255	20,661	55,531

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BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT 4371	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4371 Safety Enhanced Reentry Vehicle (SERV) Program	0	51,603	64,046	55,769	34,536	19,657	0	0	225,611
<p>(U) <u>A. Mission Description</u> The Minuteman III (MM III) weapon system is planned to become the only Intercontinental Ballistic Missile (ICBM) component of the Strategic Triad and is required to provide nuclear deterrence. Recent developments concerning nuclear weapons safety and force structure changes driven by strategic arms reductions require the capability to transition Mk 21 Reentry Vehicles (RV) from the Peacekeeper Weapon System to MM III. The Safety Enhanced Reentry Vehicle (SERV) program will modify the MM III weapon system to accept Mk 21 RVs. These modifications include changes to the MM III Reentry System (RS) to accommodate differences in electrical and mechanical interfaces, system software, support equipment, and trainers. Three (3) test articles will be developed each year in FY02, FY03, and FY04 to support development and qualification testing, flight testing, systems integration, and weapon system-level testing.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$0 No Activity - System Development & Demonstration (SDD) began in FY02 (U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u> (U) \$12,923 Design the MM III airborne vehicle equipment (AVE) hardware and software needed for the Mk 21 RV. (U) \$17,438 Develop the MM III command and launch equipment software needed for the Mk 21 RV. (U) \$7,994 Design the MM III support equipment needed for the Mk 21 RV. (U) \$12,935 Perform system test and evaluation, to include preplanning and analysis, for all the newly designed/developed hardware/software. (U) \$313 Develop trainers/training needed for employing the Mk 21 RV on the MM III. (U) \$51,603 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u> (U) \$11,496 Continue to design the MM III airborne vehicle equipment (AVE) hardware and software needed for the Mk 21 RV. (U) \$24,313 Continue to develop the MM III command and launch equipment software needed for the Mk 21 RV. (U) \$11,639 Continue the design effort of the MM III support equipment needed for the Mk 21 RV. (U) \$15,951 Continue to perform system test and evaluation, to include preplanning and analysis, for all the newly designed/developed hardware/software. (U) \$647 Continue to develop trainers/training needed for employing the Mk 21 RV on the MM III</p>									
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BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT		
05 - Engineering and Manufacturing Development				0604851F ICBM - EMD			4371		
(U) <u>A. Mission Description Continued</u>									
(U) <u>FY 2003 (\$ in Thousands) Continued</u>									
(U) \$64,046 Total									
(U) <u>B. Project Change Summary</u>									
No significant changes.									
(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u>									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other APPN									
(U) Missile Procurement - AF				21,900	47,900	25,900	29,060	23,592	148,352
(PE 0101213F, Minuteman									
Squadrons, MM III									
Modifications, Safety									
Enhanced Reentry Vehicle,									
Mod #5911) (BA-03, P-011)									
(U) <u>D. Acquisition Strategy</u>									
All efforts will be conducted under a C/Cost Plus Award Fee (CPAF) contract with the ICBM Prime Integration Contractor, (IPIC) with the exception of Nuclear Safety Cross Check Analysis (NSCCA) and Performance Analysis & Technical Evaluation (PATE) which will be contracted for separately.									
(U) <u>E. Schedule Profile</u>									
		<u>FY 2001</u>				<u>FY 2002</u>			<u>FY 2003</u>
	1	2	3	4	1	2	3	4	1
(U) Complete Pre-EMD (Started Sep 99)				*					
(U) System Functional Review				*					
(U) Milestone B						X			
(U) Contract Award--System Development & Demonstration (SDD)						X			
(U) Preliminary Design Review (PDR)									X
(U) System Software Critical Design Review (CDR)									X

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002		
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development					0604851F ICBM - EMD				4371	
(U) A. Project Cost Breakdown (\$ in Thousands)										
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>
(U)	Component Design/Development							30,674		36,456
(U)	Support Equipment Design/Development							7,994		11,639
(U)	System Test and Evaluation							12,935		15,951
(U)	Total							51,603		64,046
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)										
(U) Performing Organizations:										
	<u>Contractor or</u>	<u>Contract</u>								
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>					
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									
	TRW (Prime)	C/CPAF	Feb 02	165,759	165,759	0	0	40,777	51,616	73,366
	<u>Support and Management Organizations</u>									
	Nuclear Safety Cross Check	SS/CPAF	Jan 02	17,278	17,278	0	0	5,488	5,576	6,214
	Analysis									
	(NSCCA)/Performance									
	Analysis & Technical									
	Evaluation (PATE)									
	Various	Various	Jan 02	24,953	24,953	0	0	5,338	6,854	12,761
	<u>Test and Evaluation Organizations</u>									
	Vandenberg AFB	Project Order	TBD	17,621	17,621	0	0	0		17,621
(U) Government Furnished Property:										
		<u>Contract</u>								
		<u>Method/Type</u>	<u>Award or</u>							
	<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Program</u>									
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BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development				0604851F ICBM - EMD				4371	
(U) <u>Government Furnished Property Continued:</u>									
	<u>Contract</u>								
	<u>Method/Type</u>	<u>Award or</u>							
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Property</u>									
None									
<u>Support and Management Property</u>									
None									
<u>Test and Evaluation Property</u>									
None									
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>				<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				0	0	40,777	51,616	73,366	165,759
Subtotal Support and Management				0	0	10,826	12,430	18,975	42,231
Subtotal Test and Evaluation				0	0	0		17,621	17,621
Total Project				0	0	51,603	64,046	109,962	225,611

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT 4788	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4788 PSRE Life Extension Program	14,203	19,425	21,030	10,636	0	0	0	0	73,415
<p>(U) <u>A. Mission Description</u></p> <p>The Propulsion System Rocket Engine (PSRE) Life Extension Program will refurbish the Minuteman (MM) III post-boost vehicle (PBV) propulsion system. This refurbishment will correct age-related degradations, reduce life cycle costs, and support MM III life extension while maintaining existing weapon system reliability. Deficiencies identified (e.g., relief valve aging, titanium pressure sensing (PC) tube cracking, and fuel flex line cracks) may cause system failure/loss of performance and, in turn, potential mission failure. Other deficiencies (e.g., staging connector aging and actuator motor performance) will impact weapon system availability in addition to reducing system performance.</p> <p>RDT&E efforts will identify replacement materials for those no longer available or which have become environmentally unacceptable. The program will then design/develop components and manufacturing processes necessary to correct the identified deficiencies.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$10,641 Continued component design/development of components requiring refurbishment or replacement.</p> <p>(U) \$2,900 Continued support equipment design/development of necessary support equipment.</p> <p>(U) \$662 Began Test and Evaluation efforts.</p> <p>(U) \$14,203 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$8,243 Assemble Qualification Kits, Refurbish Verification PSRE, Conduct Initial Readiness Review of System, Refurbish two Qualification PSREs, Support Dynamics Test Qualification PSREs, Support first qualification test firing, Shipping Container Process Verification.</p> <p>(U) \$2,001 Develop Emergency Response efforts and begin transportation build.</p> <p>(U) \$1,300 Continue Equipment Installation and Integration into the Centrifuge and Pendulum Facility as well as Facility Checkout Testing.</p> <p>(U) \$1,100 Perform Dynamics and Qualification Testing.</p> <p>(U) \$6,781 Provide technician labor activities to include disassembly/reassembly of PSRE and selected subsystems; maintenance and repair of program unique depot support equipment (DSE), special test equipment (STE), and government furnished equipment (GFE); program office support; and other related activities.</p>									
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BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT																																																	
05 - Engineering and Manufacturing Development				0604851F ICBM - EMD			4788																																																	
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2002 (\$ in Thousands) Continued</u></p> <p>(U) \$19,425 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <p>(U) \$12,610 Continue Initial Readiness Review of System, Support Dynamics Test Qualification PSREs, Support Test Firing, continued vendor qualification.</p> <p>(U) \$1,000 Continue develop Emergency Response efforts and begin transportation build</p> <p>(U) \$2,000 Continue Dynamics and Qualification Testing</p> <p>(U) \$5,420 Provide technician labor activities to include disassembly/reassembly of PSRE and selected subsystems, maintenance and repair of program unique depot support equipment (DSE), special test equipment (STE); and Government Furnished Equipment (GFE), program office support.</p> <p>(U) \$21,030 Total</p> <p>(U) <u>B. Project Change Summary</u></p> <p>Program restructured to meet revised development objectives.</p> <p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 5%; text-align: center;"><u>FY 2001</u></th> <th style="width: 5%; text-align: center;"><u>FY 2002</u></th> <th style="width: 5%; text-align: center;"><u>FY 2003</u></th> <th style="width: 5%; text-align: center;"><u>FY 2004</u></th> <th style="width: 5%; text-align: center;"><u>FY 2005</u></th> <th style="width: 5%; text-align: center;"><u>FY 2006</u></th> <th style="width: 5%; text-align: center;"><u>FY 2007</u></th> <th style="width: 10%; text-align: center;"><u>Cost to</u></th> <th style="width: 10%; text-align: center;"><u>Total Cost</u></th> </tr> <tr> <th></th> <th style="text-align: center;"><u>Actual</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Complete</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>(U) Other APPN</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Missile Procurement - AF (PE 0101213F, Minuteman Squadrons, MM III Modifications, PSRE Life Extension, Mod #5768) (BA-03, P-011)</td> <td></td> <td></td> <td></td> <td style="text-align: right;">11,340</td> <td style="text-align: right;">20,650</td> <td style="text-align: right;">19,105</td> <td style="text-align: right;">19,710</td> <td style="text-align: right;">64,430</td> <td style="text-align: right;">135,235</td> </tr> </tbody> </table> <p>(U) <u>D. Acquisition Strategy</u></p> <p>The PSRE Life Extension Program will be conducted under the ICBM Prime Integration Contractor (IPIC) in partnership with the Government.</p> <p>(U) <u>E. Schedule Profile</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 20%; text-align: center;"><u>FY 2001</u></th> <th style="width: 20%; text-align: center;"><u>FY 2002</u></th> <th style="width: 20%; text-align: center;"><u>FY 2003</u></th> </tr> </thead> <tbody> <tr> <td>Project 4788</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>		<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>		(U) Other APPN										(U) Missile Procurement - AF (PE 0101213F, Minuteman Squadrons, MM III Modifications, PSRE Life Extension, Mod #5768) (BA-03, P-011)				11,340	20,650	19,105	19,710	64,430	135,235		<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	Project 4788			
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>																																															
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>																																																
(U) Other APPN																																																								
(U) Missile Procurement - AF (PE 0101213F, Minuteman Squadrons, MM III Modifications, PSRE Life Extension, Mod #5768) (BA-03, P-011)				11,340	20,650	19,105	19,710	64,430	135,235																																															
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>																																																					
Project 4788																																																								

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)										DATE February 2002			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
05 - Engineering and Manufacturing Development					0604851F ICBM - EMD					4788			
(U) <u>E. Schedule Profile Continued</u>													
					<u>FY 2001</u>					<u>FY 2002</u>		<u>FY 2003</u>	
					1	2	3	4		1	2	3	4
(U) Contract Milestones													
(U) -- Production Decision (2QFY04)													
(U) Engineering Milestones													
(U) -- PDR						*							
(U) -- CDR										*			
(U) -- Tech Order Validation								*					
(U) T&E Milestones													
(U) -- First Qualification Test Fire												X	
* - Completed Event X - Planned Event													
Project 4788					Page 15 of 28 Pages					Exhibit R-2A (PE 0604851F)			

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604851F ICBM - EMD			PROJECT 4788		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>
(U)	Component Design/Development					10,641		17,025		18,030
(U)	Support Equipment Design/Development					2,900		1,300		1,000
(U)	System Test and Evaluation					662		1,100		2,000
(U)	Total					14,203		19,425		21,030
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
	<u>Contractor or</u>	<u>Contract</u>								
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>					
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									
	TRW (Prime)	C/CPAF	Oct 99	45,236	45,236	7,574	13,025	10,730	9,400	4,507
	<u>Support and Management Organizations</u>									
	SPO/OO-ALC Support	WR	Annual	N/A	26,794	547	1,178	8,695	10,130	6,129
	<u>Test and Evaluation Organizations</u>									
	White Sands Test Facility (WSTF)	PO	As Req'd	1,500	1,500	0	0		1,500	0
(U) <u>Government Furnished Property:</u>										
		<u>Contract</u>								
		<u>Method/Type</u>	<u>Award or</u>							
	<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Property</u>									
	None									
	<u>Support and Management Property</u>									
	None									
Project 4788						Page 16 of 28 Pages		Exhibit R-3 (PE 0604851F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2002	
BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT
05 - Engineering and Manufacturing Development		0604851F ICBM - EMD				4788
(U) <u>Government Furnished Property Continued:</u>						
<u>Test and Evaluation Property</u>						
None						
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
<u>Subtotals</u>						<u>Total</u>
Subtotal Product Development		7,574	13,025	10,730	9,400	45,236
Subtotal Support and Management		547	1,178	8,695	10,130	26,679
Subtotal Test and Evaluation		0	0		1,500	1,500
Total Project		8,121	14,203	19,425	21,030	73,415

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Exhibit R-3 (PE 0604851F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT 4823	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4823 ECS Replacement Program	0	0	11,992	13,951	0	0	0	0	25,943
<p>In FY 2003, Project 4823, ECS Replacement Program, includes new start efforts.</p> <p>(U) <u>A. Mission Description</u></p> <p>The existing Minuteman environmental control system (ECS) was deployed in the 1960s with a 10-year life. The Brine chillers were upgraded in the mid 1980s, however those units have reached the end of their 10-to-15 year design life and must be replaced. Aging and obsolete ECS technology are adversely effecting weapon system availability as well as maintenance costs due to increased failure rates, non-availability of replacement parts, lack of diagnostic capabilities, and related supportability problems. This program will modify the existing ECS in Minuteman Launch Facilities (LFs), Missile Alert Facilities (MAFs), and test and trainer sites to comply with the updated environment standards specified in the ECS Replacement Operational Requirements Document (ORD) as well as to take advantage of new technologies to extend ECS life to 2020.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$0 No Activity - System Development & Demonstration (SDD) begins in FY03</p> <p>(U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$0 No Activity - System Development and Demonstration (SDD) begins in FY03</p> <p>(U) \$0 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <p>(U) \$9,746 Begin design/development of non-recurring equipment</p> <p>(U) \$1,046 Identify and begin preparation/compellation of data requirements</p> <p>(U) \$300 Provide analysis and identify simulator/trainer requirements</p> <p>(U) \$600 Provide other government support</p> <p>(U) \$300 Conduct site surveys as required</p> <p>(U) \$11,992 Total</p> <p>(U) <u>B. Project Change Summary</u></p>									
Project 4823			Page 18 of 28 Pages				Exhibit R-2A (PE 0604851F)		

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD			PROJECT 4823	
(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u>								
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>
(U) Other APPN								
(U) Missile Procurement - AF					16,714	54,406	62,742	150,939
(PE 0101213F, Minuteman								
Squadrons, MM III								
Modifications, Environmental								
Control System Modification,								
Mod #5739) (BA-03, P-011)								284,801
(U) <u>D. Acquisition Strategy</u>								
The ECS Replacement Program will be conducted under the ICBM Prime Integration Contractor (IPIC). The IPIC will conduct and manage the acquisition effort to determine the best value to the Government. It is anticipated that the development effort will be completed on a Cost Plus Award Fee (CPAF) contract.								
(U) <u>E. Schedule Profile</u>								
			<u>FY 2001</u>			<u>FY 2002</u>		<u>FY 2003</u>
			1 2 3 4			1 2 3 4		1 2 3 4
(U) Contract Milestones								
(U) -- Milestone B								X
(U) -- SDD Contract Award								X
(U) Engineering Milestones								
(U) -- PDR (1st Qtr, FY04)								
(U) -- CDR (3rd Qtr, FY04)								
* - Completed Event								
X - Planned Event								

Project 4823
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Exhibit R-2A (PE 0604851F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT		
05 - Engineering and Manufacturing Development					0604851F ICBM - EMD			4823		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
						<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>
(U)	Product Development									11,392
(U)	Support and Management									600
(U)	Total									11,992
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
	<u>Contractor or</u>	<u>Contract</u>								
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>					
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									
	TRW (Prime)	C/CPAF	2QFY03	24,743	24,743	0	0	0	11,392	13,351
	<u>Support and Management Organizations</u>									
	Various	Various	2QFY03	1,200	1,200	0	0	0	600	600
	<u>Test and Evaluation Organizations</u>									
	None									
(U) <u>Government Furnished Property:</u>										
		<u>Contract</u>								
		<u>Method/Type</u>	<u>Award or</u>							
	<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Property</u>									
	None									
	<u>Support and Management Property</u>									
	None									
	<u>Test and Evaluation Property</u>									
	None									
Project 4823						Page 20 of 28 Pages		Exhibit R-3 (PE 0604851F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2002	
BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT
05 - Engineering and Manufacturing Development		0604851F ICBM - EMD				4823
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Total</u>
		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Program</u>
<u>Subtotals</u>					<u>Budget to</u>	
Subtotal Product Development		0	0	0	11,392	24,743
Subtotal Support and Management		0	0	0	600	1,200
Subtotal Test and Evaluation						
Total Project		0	0	0	11,992	25,943

Project 4823

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT 5007	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
5007 GPS Metric Tracking Capability	0	4,000	5,686	0	0	0	0	0	9,686
<p>(U) <u>A. Mission Description</u> As part of the ongoing Range Standardization and Automation (RSA) effort, the retirement of radar-based legacy range instrumentation for tracking and controlling Minuteman force development evaluation (FDE) flights at the Western Range is planned to begin in FY07. The range will be transitioning to a Global Positioning System (GPS) based tracking system. Future procurement of the Minuteman Instrumentation Range Safety Wafers (aka Mod 7 Instrumentation Wafers) will incorporate GPS technology. The current inventory of instrumentation wafers equipped with radar beacons will run out in second quarter of FY06. Therefore, the Western Range and the Minuteman weapon system must be made ready to support GPS range certification flights in FY04 to ensure that the GPS tracking system (both the ground and on-vehicle segments) is operational by FY06. This program will develop, modify, test and flight certify the necessary GPS hardware integrated in the Mod 7 Instrumentation Wafer to support flight test operations of the Minuteman weapon system from the Western Range using GPS. This metric tracking system will provide range operations with near instantaneous time/space position information and flight profile data required to safely conduct launch operations.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$0 No Activity -- System Development & Demonstration (SDD) began in FY02 (U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u> (U) \$3,800 Begin the design and development of the hardware needed to provide Minuteman with a GPS-based metric tracking capability. (U) \$200 Provide program office support. (U) \$4,000 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u> (U) \$5,486 Continue the design and design and development of the hardware needed to provide Minuteman with a GPS-based metric tracking capability. (U) \$200 Provide program office support. (U) \$5,686 Total</p> <p>(U) <u>B. Project Change Summary</u> FY03: Funding added to complete the System Development and Demonstration (SDD).</p>									
Project 5007			Page 22 of 28 Pages				Exhibit R-2A (PE 0604851F)		

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD			PROJECT 5007		
(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u>									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other APPN									
(U) Missile Procurement - AF (PE 0101213F, Minuteman Squadrons, MM III Modifications, GPS Metric Tracking Program, Mod #5799) (BA-03, P-011)									
			3,348	3,700	500				7,548
(U) Related RDT&E PE 0605860F, RSLP (Space) (GPS Metric Tracking) (BA-06, R-101) PE 0604853F, EELV (GPS Metric Tracking) (BA-05, R-088)									
(U) <u>D. Acquisition Strategy</u> A Cost Plus Award Fee (CPAF) contract addendum to the ICBM Prime Integration Contract with scheduled effort to begin in 2QFY02.									
(U) <u>E. Schedule Profile</u>									
			<u>FY 2001</u>			<u>FY 2002</u>		<u>FY 2003</u>	
			1	2	3	4	1	2	3
(U) Contract Milestones									
(U) -- Milestone B									
(U) -- System Development & Demonstration (SDD) Contract Award									
(U) Engineering milestones									
(U) -- PDR									
(U) -- CDR (1st Qtr, FY04)									
* - Completed Event X - Planned Event									
(U) -- CDR (1st Qtr, FY04)									

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Exhibit R-2A (PE 0604851F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT	
05 - Engineering and Manufacturing Development					0604851F ICBM - EMD					5007	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>		
(U) Design/Development of Hardware							3,800		5,486		
(U) Program Office Support							200		200		
(U) Total							4,000		5,686		
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
(U) <u>Performing Organizations:</u>											
<u>Contractor or</u>		<u>Contract</u>									
<u>Government</u>		<u>Method/Type</u>		<u>Award or</u>		<u>Performing</u>		<u>Project</u>			
<u>Performing</u>		<u>or Funding</u>		<u>Obligation</u>		<u>Activity</u>		<u>Office</u>		<u>Total Prior</u>	
<u>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2001</u>	
<u>Product Development Organizations</u>											
TRW		C/CPAF		Jan 02		TBD		9,286		0	
<u>Support and Management Organizations</u>											
Other		Various		TBD		TBD		400		0	
<u>Test and Evaluation Organizations</u>											
					<u>Total Prior</u>		<u>Budget</u>		<u>Budget</u>		
<u>Subtotals</u>					<u>to FY 2001</u>		<u>FY 2001</u>		<u>FY 2002</u>		
Subtotal Product Development					0		0		3,800		
Subtotal Support and Management					0		0		200		
Subtotal Test and Evaluation											
Total Project					0		0		4,000		
									5,686		
									0		
									9,686		

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Exhibit R-3 (PE 0604851F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE February 2002	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604851F ICBM - EMD				PROJECT 5037	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
5037 Support Equipment	0	0	9,876	23,259	0	0	0	0	33,135
<p>In FY 2003, Project 5037, Support Equipment, includes new start efforts.</p> <p>(U) <u>A. Mission Description</u></p> <p>Support Equipment is used for missile weapons systems maintenance and refurbishment at organizational/intermediate (base/field) and depot levels, launch control facilities, as well as missile testing facilities. Funding provides replacement support equipment for an aging inventory of equipment that has become increasingly more costly to maintain. This equipment will sustain ballistic missile system reliability and maintainability and restore minimum capabilities needed to support maintenance and testing requirements. The equipment supports the Minuteman (LGM-30) missile weapons system. Requirements for the replacement support equipment are jointly determined by Headquarters United States Air Force (HQ USAF), Air Force Materiel Command, (AFMC) and Air Force Space Command (AFSPC) based on established tables of allowances. The 3600 funds will allow for the necessary engineering, development, and testing associated with the replacement effort.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$0 No Activity - System Development and Testing began in FY03.</p> <p>(U) \$0 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$0 No Activity - System Development and Testing began in FY03.</p> <p>(U) \$0 Total</p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <p>(U) \$2,598 Identify, define and document initial system requirements and specifications.</p> <p>(U) \$6,592 Begin design, development, testing and qualification.</p> <p>(U) \$686 Provide program support.</p> <p>(U) \$9,876 Total</p> <p>(U) <u>B. Project Change Summary</u></p>									
Project 5037			Page 25 of 28 Pages			Exhibit R-2A (PE 0604851F)			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002		
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development				0604851F ICBM - EMD				5037	
(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u>									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U)	AF RDT&E								
(U)	Other APPN								
(U) <u>D. Acquisition Strategy</u>									
The Support Equipment Program will be conducted under the ICBM Prime Integration Contractor (IPIC). The IPIC will conduct and manage the acquisition effort to determine the best value to the Government. It is anticipated that the development effort will be completed on a Cost Plus Award Fee (CPAF) contract.									
(U) <u>E. Schedule Profile</u>									
	<u>FY 2001</u>			<u>FY 2002</u>			<u>FY 2003</u>		
	1	2	3	4	1	2	3	4	1
(U)	Contract Milestones								
(U)	-- Contract Award (2QFY03)								
(U)	Engineering Milestones								
(U)	-- Preliminary Design Review (PDR)								
(U)	-- Critical Design Review (CDR) (1QFY04)								
								X	
									X

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604851F ICBM - EMD			PROJECT 5037		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					<u>FY 2001</u>				<u>FY 2002</u>	<u>FY 2003</u>
(U) Product Development								9,190		
(U) Support and Management								686		
(U) Total								9,876		
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<u>Contractor or</u>	<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
TRW (Prime)	C/CPAF	2QFY03	TBD	30,999	0	0	0	9,190	21,809	30,999
<u>Support and Management Organizations</u>										
SPO/Other Program	TBD	TBD	TBD	2,136	0	0	0	686	1,450	2,136
<u>Test and Evaluation Organizations</u>										
None										
(U) <u>Government Furnished Property:</u>										
		<u>Contract</u>								
		<u>Method/Type</u>	<u>Award or</u>							
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>			<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>			<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
<u>Product Development Property</u>										
None										
<u>Support and Management Property</u>										
None										
<u>Test and Evaluation Property</u>										
None										
Project 5037					Page 27 of 28 Pages			Exhibit R-3 (PE 0604851F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2002	
BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT
05 - Engineering and Manufacturing Development		0604851F ICBM - EMD				5037
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
						<u>Total</u>
	<u>Subtotals</u>					<u>Program</u>
	Subtotal Product Development	0	0	0	9,190	30,999
	Subtotal Support and Management	0	0	0	686	2,136
	Subtotal Test and Evaluation					
	Total Project	0	0	0	9,876	33,135

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